

Application No. 10/771,820
Amdt. Dated September 14, 1005
Amendment After Allowance

Amendments to the Specification:

Replace the paragraph on page 24, lines 8-17 with the following amended paragraph:

The switches 132 are manufactured by depositing semiconductor layer ~~140~~ 141 the conductive strips 134 and over the exposed surface of the dielectric material 136, the preferred semiconductor material being Si_3N_4 . Stand-off isolators 142 are deposited at intervals down the gap between the conductive strips 134 and are preferably formed of an insulator material such as silicon dioxide. A respective strip of metallic material 144 is mounted over each of the gaps by affixing it on the top of the stand-offs 142 along one of the gaps.

Replace the paragraph on page 24, lines 18-28 with the following amended paragraph:

In operation, each metallic strip 144 has either 0 volts or voltage potential applied, with the preferred potential being 50 volts. With 0 volts applied, the strips ~~134~~ 144 remain suspended above their respective gap between the stand off isolators 142 as shown in FIG. 12. The switches are in the "Off" state and the structure 130 presents as a high impedance to the design frequency E field transverse to the conductive strips 134. The gaps between the strips 134 presents a capacitance and the vias 138 present an inductance, with the structure presenting as a series of resonant L-C circuits to the transverse E field.

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Replace the paragraph on page 26, lines 9-27 with the following amended paragraph:

FIG. 15 shows millimeter beam transmission system 170 used in various high frequency applications such as munitions guidance systems (e.g. seeker radar). A transmitter 172 generates a millimeter signal 174 that spreads as it moves from the transmitter. Most of the signal is directed toward a lens 176 that collimates the signal into a beam 177 with little diffraction. The collimated beam travels to a second lens ~~158~~ 178 that focuses the beam to a receiver 180. The shutter switch 182 is positioned between a millimeter wave transmitter 172 and receiver 180 such that it intercepts the transmission beam 177. When the shorting switches on the shutter switch's waveguides are open, the shutter switch 182 is transparent to the beam and the signal passes from the transmitter 172 to the receiver 180. When the shorting switches are closed, transmission of the signal through each of the waveguides is cut-off, making the shutter switch 182 opaque to the beam 177 and blocking transmission from the transmitter to the receiver.